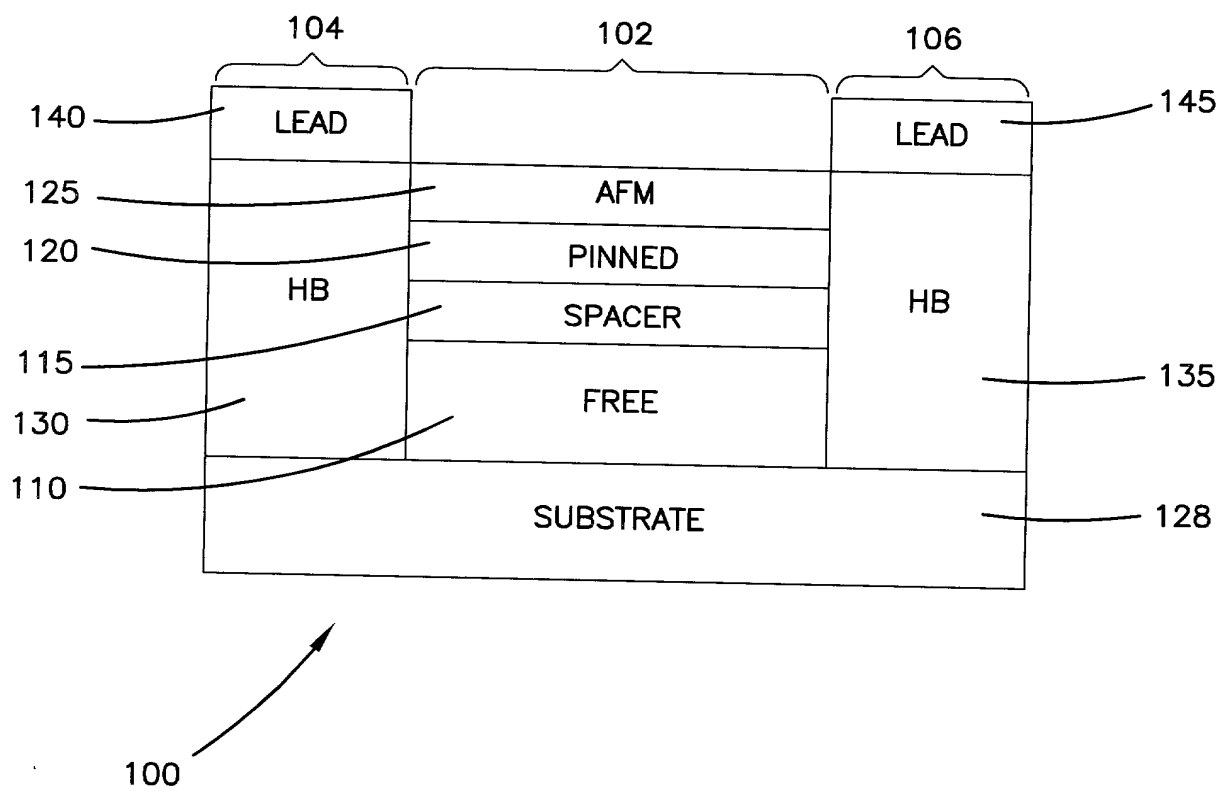


FIG. 1



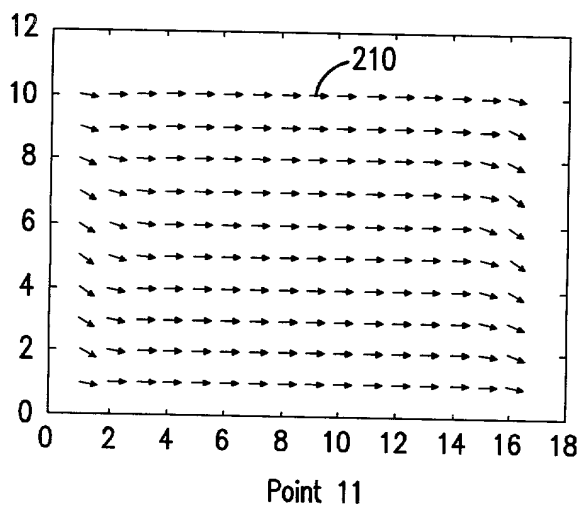


FIG. 2a

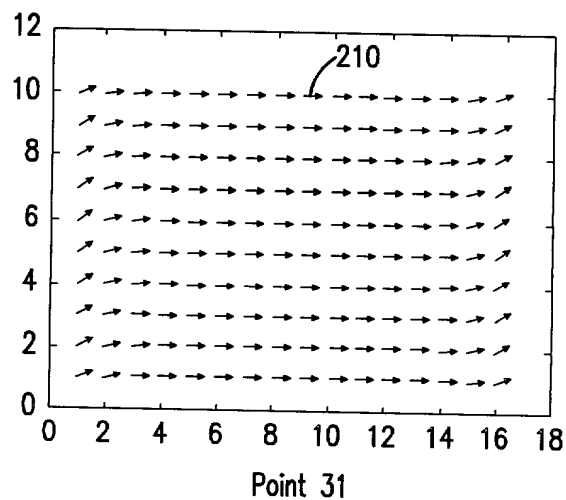
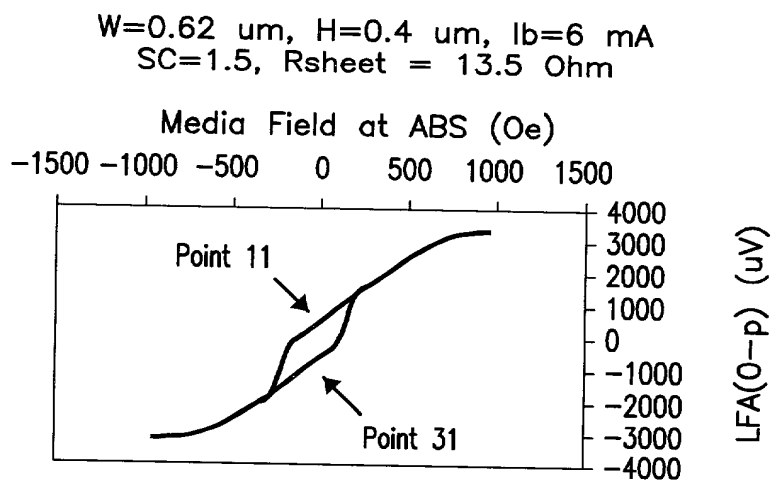


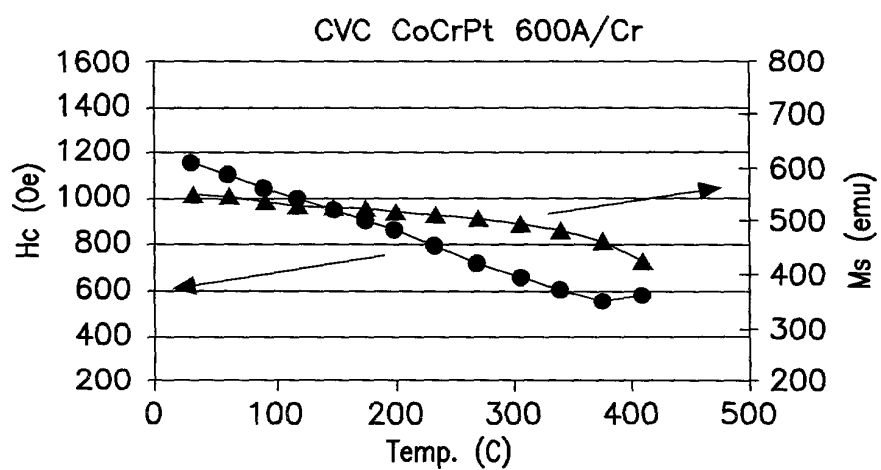
FIG. 2b



Micromagnetic calculation of the free layer magnetics with different free layer edge states due to the poor PM stabilization.

FIG. 2c

FIG. 3



Temperature dependence of a typical PM hard bias layer

FIG. 4

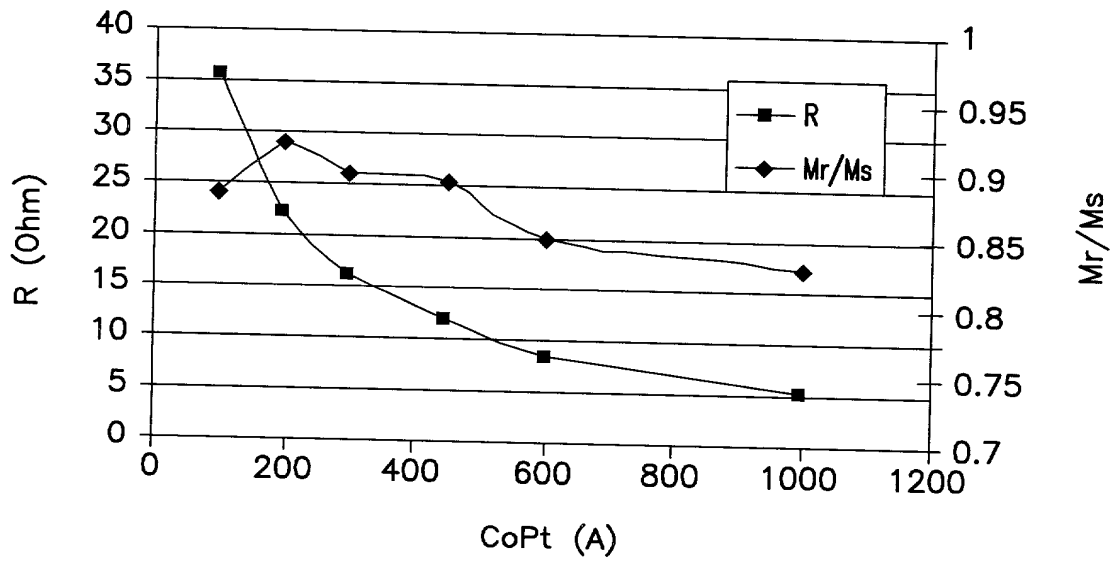


FIG. 5

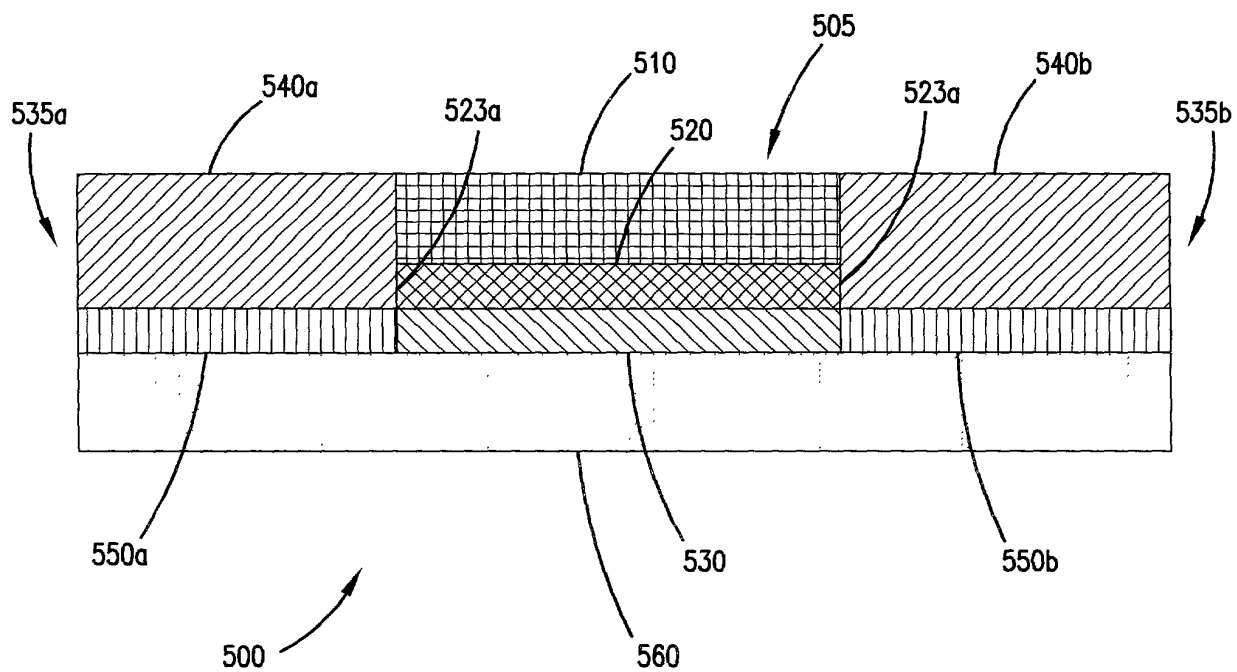


FIG. 6

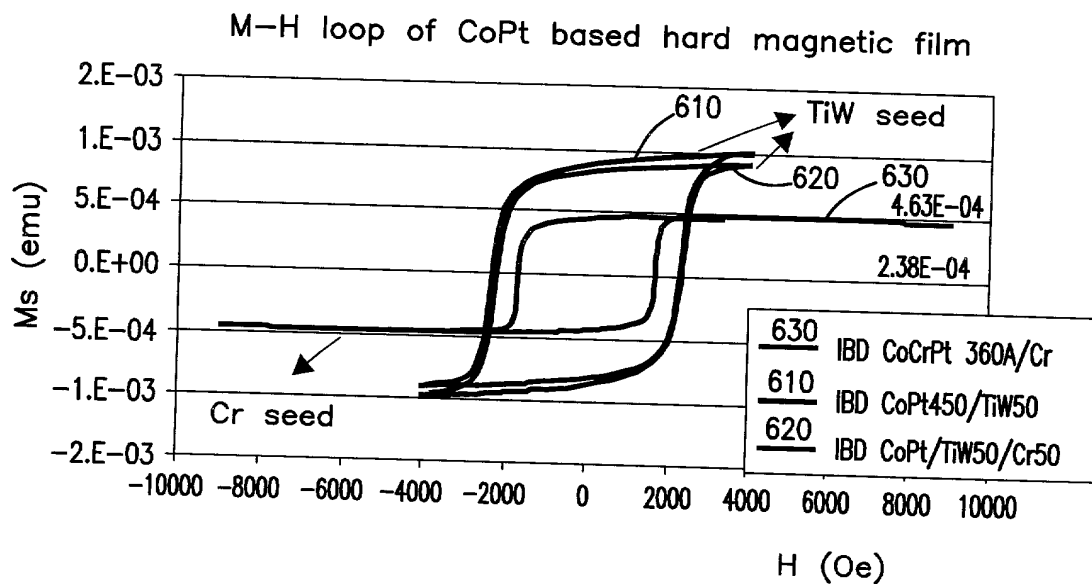


FIG. 7

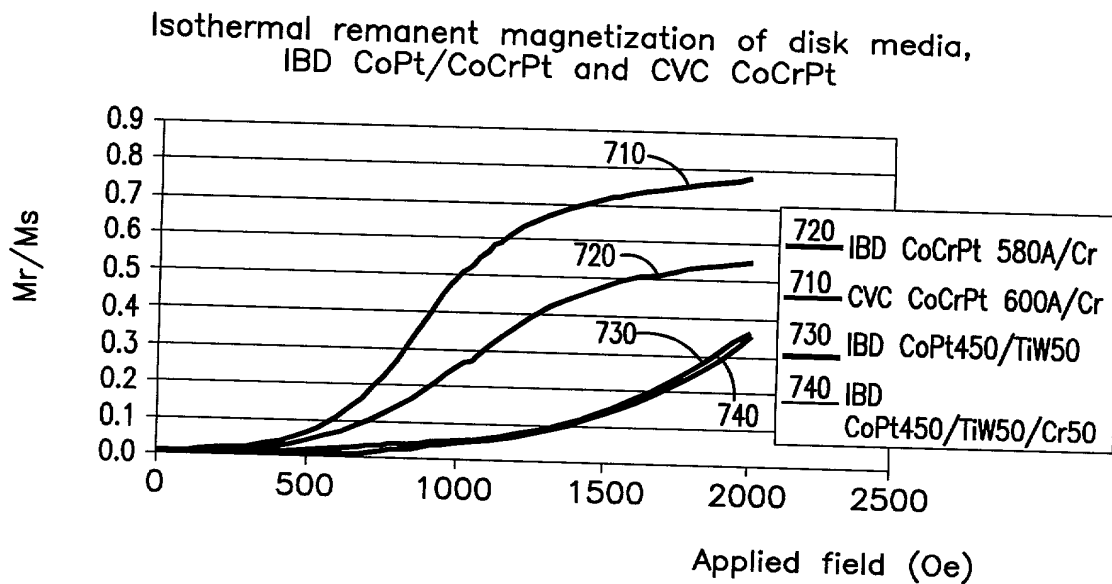


FIG. 8

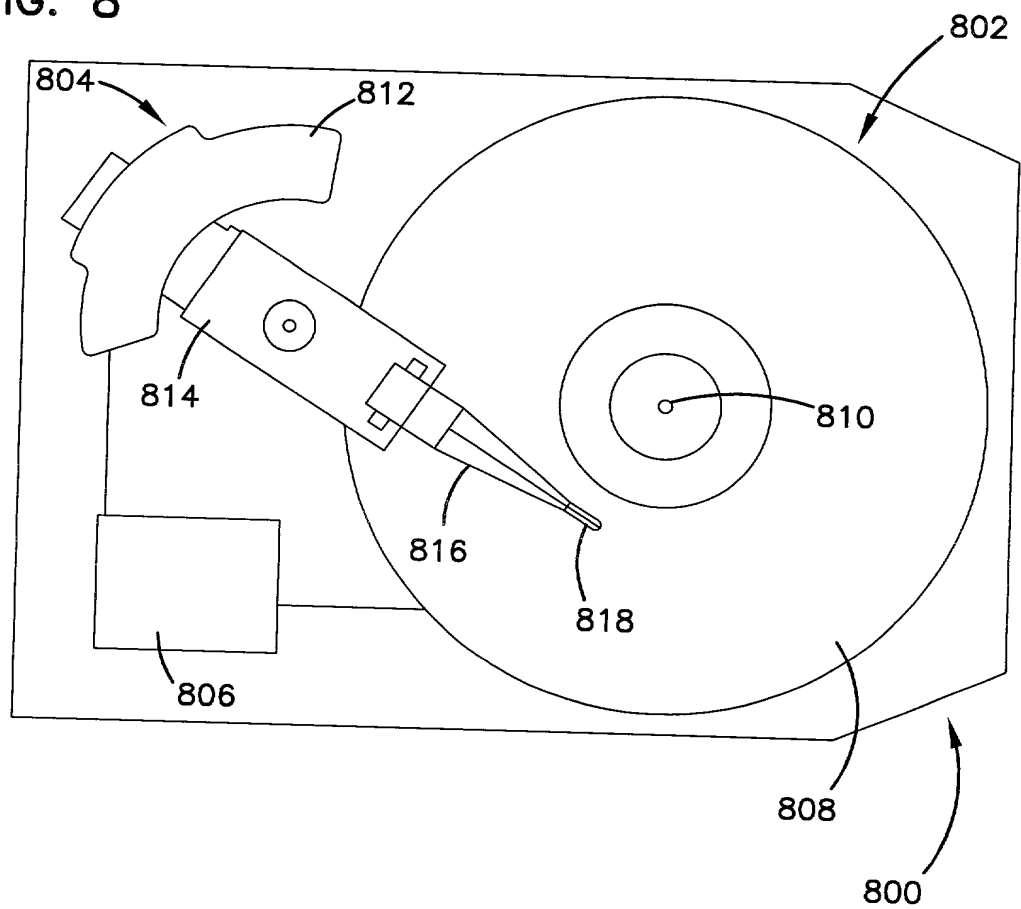


FIG. 9

